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ABSTRACT

Intended for use with students in lower division technical writing courses, this list of over 800 suggested composition subjects is drawn from surveys of technical writing teachers as well as from teachers of science and technology. The suggested subjects pertain to 16 types of papers commonly presented in textbooks and articles dealing with technical writing instruction: (1) extended definition, (2) process without a conspicuous performer, (3) instructional ("how to"), (4) classification/partition, (5) comparison/contrast, (6) cause/effect, (7) description of a mechanism, (8) summary of a scientific or technical source, (9) inquiry or request, (10) complaint, (11) proposal for research, (12) analysis of a problem, (13) report of research progress, (14) library research report, (15) elementary empirical research, and (16) combination of library and empirical research. In addition, the listing provides a number of first and second preference suggestions, as well as subjects and sources for library research and composition suggested by Illinois State University faculty in the departments of agriculture, applied computer science, corrections, health science, home economics, industrial technology, biology, chemistry, geography-geology, physics, and science and technology. (HOD)

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Suggested Subjects of Composition for Lower-division Technical Writing

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Suggested Subjects of Composition for Lower-division Technical Writing

Introduction

More and more technical writing courses are being offered at the freshman and sophomore level in the four-year college and the university as well as in the community college and the technical institute. Many students of lower-division technical writing in the four-year institution, however, have not yet developed specialized knowledge in their major fields. When asked to do papers relating to types of writing performed on the job, these students may experience difficulty in selecting subjects for composition. Ordinarily, students must find a subject of particular familiarity to them and adapt it to the specific requirements of the writing assignment. Without instructional assistance, students of lower-division technical writing, however, may not choose the most appropriate subject.

I believe that a list of suggested subjects enables students to examine their own experience and knowledge, not merely to recognize a given subject as suitable, but to help them in thinking of a related subject as a more effective one. Individual teachers are no doubt limited in the number of suggested subjects they can offer.

Therefore, I developed the present list of over eight hundred suggested subjects based on surveys of teachers of technical writing as well as teachers of science and technology. The suggested subjects pertain to sixteen types of papers commonly presented in textbooks and articles dealing with technical writing instruction.

Unless otherwise indicated, the suggested subjects were provided by over one hundred members of the Association of Teachers of Technical Writing who responded to my 1981 survey concerned with lower-division technical writing. Many members of this association are among the teachers of English in higher education who are most actively engaged in technical writing instruction. Additional suggested subjects for library research and composition derived from a survey of faculty in science and technology at Illinois State University. Many of those suggested subjects include sources recommended for research.

Some of the suggested subjects reflect specialized knowledge and are so classified in the listing. Thus, upper-division as well as lower-division students of technical writing may find this material useful as an aid to invention.

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Suggested Subjects of Composition Based
on Extended Definition

Familiar Subjects

A term from a job or hobby

Cigarette lighter

A term from a major field of study

Economy car

Map

Chart

Roommate

A good teacher

Graph

Plender

A device from a major field

Student

A student's major field

Potato peeler

Key

Paper clip

Felt pen

Ruler

Typewriter

A task to be done

Feedback

Snow

Dog.

Specialized Subjects

Sextant

Word processing

A data processing term

Audience analysis

AC-DC conversion/energy

Offset printing

Micro processor

Transistor

A patrolman's offense report

Photosynthesis

Airfoil

Laser

Brake

Power

Extended Definition
Specialized Subjects (continued)

Energy

Soil horizon

Farrow to finish operation

BYTE

Horsepower

Resistance

Thermodynamics

Coma

Transit

Thermostat

Fission

Tolerance

Cancer

Tourniquet

Scientific method

Flow chart

Ecology

Computer

Estrogen

Windfall profit tax

Erosion

Cutability

Microcomputer

Nutrition

Carrying capacity

Analytical balance

Dialectric

Schizophrenia

Entrophy

Research

Ethics

Digital electronics

Robotics

Gyroscope

Memory

Suggested Subjects Based on Process Without
a Conspicuous Performer

Familiar Subjects

Registration process for college

Toilet tank operation

Going from one campus building
to another

Overhead projector

Bicycle in operation

Specialized Subjects

Stages of a biological or
chemical process

Operation of a refrigeration
unit

Research techniques for techni-
cal communication

Improving communication in an
office

Budget process

Work plan

Silk screen

How a machine or device works

Manufacturing of paper

Desalinization of water

Making bricks

Administering a medical test

Ignition system of a car

Laboratory process

Internal combustion

How a microwave oven works

Silk

Communication cycle

Circulation of blood

Evaporation

Eutrophication

How radar works

Research, test method explained
to management

How a thermostat works

Electronic circuits

4

Process
Specialized Subjects (continued)

Developing black and white film

A chemical analysis

How a haybaler works

Movement of stock through a
warehouse to customers

How a cell divides

Operation of atomic power plant

Extending mental health services

How a college awards financial
aid

Fermentation

Solar heating systems

Laboratory report

Cosmosis

Volcanic eruption

Hydroponics

Germination and growth of a
seed

Formation of cumulus clouds

Making cheddar cheese

Shipping explosives cross-
country

Continuous casting

Growth of a tree

Suggested Subjects of Composition Based on Instructions

Familiar Subjects

Any process around home	Writing a check
Changing oil	Replacing a windowpane
Repairing household water faucet	A maintenance procedure
Changing a tire	Checking out a library book
Refinishing furniture	CPR
Assembling a tinker-toy mechanism	Saving a victim of choking
Building a kite	Reading a weather map
Caulking a bathtub	Tying a shoe
Putting together a "Big Wheel"	Assembling a bike
Installing a vinyl floor	Jump starting an auto
Making a peanut butter sandwich	Loading a stapler
Fixing a punctured tire	Installing a dimmer light switch
Playing a particular game	Safety precautions
Baking a certain dish	Operating a chainsaw
Operating a can opener	

Specialized Subjects

Preparing a slide in biology	Developing a photograph
Preparing blood smears	Changing a carburetor
Operating a machine	Building a wooden fence
Shipping a printing plate	Using a voltmeter

Instructions
Specialized Subjects (continued)

Skiing safely	Calculating personal income tax
Reconditioning a boat	Calculating "current ratios" (business)
Simple auto body repair	Tying fishing flies
Procedure for filling a syringe	Making bullets
Procedure for surveying property	Patient assessment
Using a program in computer-assisted instruction	Installing moisture blocks
Tuning an engine	Assembling a chair for a carpenter/for a layman
Self-arresting with an ice axe	Performing a particular experiment
Working a math problem	Adapting a motorcycle for trail riding
Cleardutting	Sorting mail
Breaking a foal to halter	Operating a drill
Building a solar greenhouse	Sharpening a chainsaw
Using a tachometer	
Grafting on a tree	
Setting up a transit	
Setting up an apparatus	
Designing a circuit	
Operating an A B Dick ditto machine	
Solving a linear equation	
Taking care of a photocopy machine	
Blowing glass	
A job description	

Suggested Subjects of Composition Based
on Classification/Partition

Familiar Subjects

Analysis of the parts of a desk-chair

Outlining from brainstorming

Coursework for degrees

Automobiles

Tape decks

Types of nightclubs

Uses of a college catalog

Majors in a field classified by reason for choosing the major.

Simple cameras

Books in a library

Camping gear

Application letter/resume

Types of students

Specialized Subjects

Types of electric generators

Types of fishing vessels

Types of offshore oil platforms

Types of fog

Automobile principal assemblies

Types of attenuators

Kinds of computers

Modern industry organization

Potential of solar or wind power sources

Career available for the AB degree holder

Computer languages (e.g., COBOL, BASIC)

Nursing specialties

Cattle

Tools in a workshop

Identification of plant materials

Ammeter

Capacitance

Table of elements

Preparing a table of contents for a technical report

Periodicals in major field

Considerations for selecting a construction site

Engineering terms

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Classification/Partition
Specialized Subjects (continued)

Allied health services

Types of technical audiences

Selling techniques

Parts of a tool

Specific job description

Lab equipment

Types of concrete

Types of smoke detectors

Types of wrenches

Types and components of pocket
calculators

Outboard engines

Kinds of computer software

Set of variables

Evaluation of texts in a field

Steel beams

Documentation

Kinds of business machines

Rejection letter

Poems

Jobs in a given specialty

Suggested Subjects of Composition Based
on Comparison/Contrast

Familiar Subjects

Two instructors
Auto specifications
Two brands of jogging shoes
Two brands of bicycles
A human and an apple
High school vs. college
Types of cookies

Felt tip vs. ball point pens
Prices at local chain stores
University parking lot use at
9:00 A.M. vs. 3:00 P.M.
Courses in and out of major
Summer and winter in . . .

Specialized Subjects

Feasibility report: contrast
two pairs of skis
Purchasing computers
Two screening tests for sickle-
cell anemia
Mechanical typewriters vs. word
processors
Offset and letter press
Leasing vs. buying cars
Two types of engines
Time study of two methods of
baking bread
Two methods of removing a pres-
sure regulator
Two computer languages

Solar power and wind power
Cross-country vs. alpine skis
Radial and conventional tires
Airplane wing with sail on a
boat
Types of insulation
No till vs. conventional till-
age methods
Two storage-building designs
Engineering terms (definitions)
A technical vs. a non-technical
article on same subject
Two kinds of weather reports
Formal article vs. formal
report

Comparison/Contrast
Specialized Subjects (continued)

Case study on feasibility of
 two conflicting proposals

LED vs. LCD for electronic dis-
 plays

Passive vs. active solar energy

Good vs. poor memos

Student vs. professional writing

U.S. vs. British education

Offerings at two technical
 schools

Diesel vs. gasohol as fuel

Two species of pine trees

COBOL vs. FORTRAN

U. S. Grant vs. Robert F. Lee

Inflation and deflation

Tolerance levels in X and Y

Suggested Subjects for Composition
Based on Cause/Effect

Familiar Subjects

Why divorce rates are so high

Pressing a key on a typewriter
to cause an imprint on paper

X number of ways to lose your
job

The parking lot jam up

How a sailboat sails

What determines the price of
beer at student center bar

Grading system (A, B, C, D, E)
of colleges

Causes of student disinterest
in cultural activities

Why is your last report late

Late drop and add (college
courses)

Late registration

Why student drop-out rate is
high

Specialized Subjects

Shrinkage of tillable land in
the U.S.

Benefits derived from changing a
manufacturing procedure

Effects of using leaded gas in a car
specifying unleaded gas

Did expenditures in X result in
improved Y

Business should be encouraged to
locate in a specific area

Impact on hypothetical company
if new employees were hired

Laser

The possible effects of a change
in staffing patterns

Wastewater--determine how/why
untreated effluent is entering
a local river

The dangers of nuclear power
plants

TV "ghosts"

Strip-mining

Contour farming

Magnetism

Chemical reaction

A trouble-shooting problem in
student's major

Barometer

Cause/Effect
Specialized Subjects (continued)

Trouble report on a defective
 gear-grinding machine

Gun control legislation

Grade inflation

Why earthquakes occur

Accident analysis

Relation between health and
 leisure activities

Soil erosion

A case study on any organiza-
 tional problem

Cause of failure of an experiment

A natural process

Impact of university on local
 economy

Consequence of using sunlamps
 for body tan

Whether a letter or a memo is
 appropriate

Letter of complaint on delivery
 of supplies

Benefits of auto safety devices

Curriculum changes

Explosives research

Function of spark plugs in an
 engine's effectiveness

Why does it rain

Effects of different exercises
 on heart rate

Suggested Subjects of Composition Based
on Description of a Mechanism

Familiar Subjects

Vegetable peeler	Pliers
Wrench	Hand tool
Potato peeler	Simple appliance
Mechanical pencil	Screwdriver
A child's toy	Paring knife.
Electronic razor	Staple remover
Home-movie camera or projector	Cheese slicer
Gear mechanism on a ten-speed bicycle	Pizza cutter
Can opener	Wine bottle opener
Ball-point pen	Egg slicer
Flashlight	Cigarette lighter
Wheel	A level
Typewriter	Light switch
Car jack	Lamp
Xerox machine in college library	

Specialized Subjects

An organ of the body	Drafting instrument
Microscope	Food-waste disposal
A clear-cutting logging mechanism	Electronic mixer
Spring-operated clock	Oscillating electronic fan

Description of a Mechanism
Specialized Subjects (continued)

Linotype press

Oscilloscope

How a thermistor works

Automotive valve

The electronic automobile

A mailing tube

Army wrecker

Carburetor

Brake

Transit

Plane table

The inductive proximity sensor

The electro-mechanical system

The combine

Digital clock

Staple gun

Rivet tool

Safety device in nuclear power plants

Electron microscope

Radar equipment

A computer part

Resistor

Engineer's compass

Artificial limb

A lathe

A laboratory apparatus

Rube Goldberg contraption

Camera shutter

How a CAT scan works

Abney level

Suggested Subjects of Composition Based on Summary
of a Scientific or Technical Source

- | | |
|--|--|
| On land faults | Use technical description from Federal Register |
| Abstracts of professional/technical journal articles | Distinguish among precis, abstract, and summary |
| An article from <u>Scientific American</u> | On cloning |
| Impact of computers on learning | "So You'd Like to Fly a Fighter Plane" in <u>Mills and Walter</u> |
| Summary of an article in student's field for lay audience | Book chapter on proposals or formal reports |
| An essay from <u>Time</u> | Abstract on a student's research report |
| Abstract of an article used for a formal paper | Article on word processors--units available for in-house typing, printing, camera-ready production |
| Research on solar heating | Thomas' <u>Lives of a Cell</u> ; Selzer's <u>Mortal Lessons</u> |
| USDA brochure | Source on an environmental issue |
| Abstract of a technical report about germs | Communication satellites |
| Article found through use of <u>Science and Technology Index</u> | |
| Article in <u>Hoard's Dairyman</u> or <u>Concrete Design</u> | |
| Chapter on formal report from a textbook | |
| Chapter from a technical textbook | |
| Recombinant DNA | |
| "Hedging" in weather forecasting | |
| Article in communication or media | |

Suggested Subjects of Composition
Based on Inquiry or Request

Familiar Subjects

Job application

Inquiry to Chamber of Commerce
about industries, job opportu-
nities

Answering a help wanted ad

Arranging to tour a company

Finding out about a new product

Inquiring about a price

Letter of invitation

Obtaining travel information

Answering an inquiry or request

Making accommodations for a
vacation

Requesting a letter of recom-
mendation

Seeking information to apply
for a bank loan

Requesting a catalog or price
list

Specialized Subjects

On data for wind generators

Potential employment sites

Information to be used in a
report

On job opportunities for women
in computers

Letter with easy-to-answer
questionnaire

Order letter for drafting
pencils

Request and justify a staff
addition

Request for interview (perhaps
from an expert in the student's
field)

On computers as money-saving
devices for utilities

Asking for additional informa-
tion on fellow student's
proposal

On the effectiveness of inter-
feron

On the methods in a successful
program

Inquiry about admission to an
academic program

Request for a progress report

Inquiry to a prospective
publisher of an article

Inquiry or Request
Specialized Subjects (continued)

Information on alternative
equipment, to word processors

For an annual report of a
corporation

Information on paper processing

To EICO for specifications on
kits

Request permission to use printed
matter

Suggested Subjects of Composition Based on a Complaint

Catalog order that was incorrectly filled

To a store concerning poor service

Small appliance failure

New car that doesn't run properly

Home office concerning a problem not helped at the local level

Describing a product that does not work (e.g., a broken stereo or toaster) with a focus on faulty design, workmanship, or material

A gripe with a specific solution

Concerning a wrong or incomplete order sent

Returning a defective part

Complaint about a personnel policy revision

A billing error

Damaged shipment

A delay in shipping

Disability check not received on time

Concerning a lack of cooperation

Lack of adequate parking space

Response to a given letter of complaint

A campus problem

"Bad news" letter

A disagreement with a professor

Seeking adjustment for damaged merchandise

Campus issue--letter to editor

Clarification of bank statement

To safety officer regarding fire hazard (e.g., in trash area)

To a dean regarding a course or school problem (e.g., food served in the dorm or library hours)

Notation to supervisor of on-the-line complaint (memo or letter)

Letter to editor about the sanitary landfill operation

Suggested Subjects of Composition Based
on Proposal for Research

- | | |
|--|---|
| Wind-generated power | On research about safety of nuclear power production |
| Offering credited, on-site courses to the imprisoned | Relating to a project in another course, such as a lab course |
| Any ecological subject | On danger of chemical wastes in the environment |
| Rental or purchase of vehicle or equipment | On solar heating for domestic hot water |
| For technical report on computers in industry | For a simple original survey of student attitudes on such topics as housing, knowledge of scholarship programs of the institution |
| On types of breast cancer | On a study of emissions from a plant |
| The need for a day-care center in a particular community | To build a bridge |
| Prospectus on an experiment in plant fertilizer | A study of fetal alcohol syndrome |
| A survey of salaries in a specific area or profession | A study on writing processes of professions in student's field |
| Subject concerning a career field | Feasibility of undergraduate courses |
| Research paper on natural disasters | On whether an alternative bookstore on campus would be supported |
| Problems in constructing underground homes | A significant community problem |
| Abolish pass/fail grading process | A study on manganese deficiency in horse diet (alfalfa) |
| A feasibility study | A research on TV satellites |
| On the history and development of first-generation computers | |
| Simulated proposal on an organization to a government agency or philanthropic organization | |

Proposal for Research
Suggested Subjects (continued)

Problem of drops/adds on
campus

A study of job outlook in a
field

Use of word-processing systems
on local campus

Suggested Subjects of Composition Based
on Analysis of a Problem

Familiar Subjects

Adequacy of campus security

What is wrong with the institution's registration procedure

Projected rise in tuition costs

Access of the handicapped

Inadequacy of lab equipment

Parking problem

Whether advisor approval is necessary for graduate student's courses

Investigation of intersection of highway noted for traffic accidents

How to organize a work crew

Lack of enough weekend organized social activities on campus

Feasibility of college-sponsored commuter bus

Vandalism on campus

An environmental, school, or work problem

Why students fail in college

Personality conflicts

Analysis of preregistration procedures

Specialized Subjects

The space program

Urban blight

Modernization of farming

Selecting best vehicle, piece of equipment

How a certain paper is best organized

Suburb encroachment on winter range of deer

Decreasing noise in and around airports

Windfall profits tax

Voice recognition by computers

Use of estrogen replacement therapy for menopausal women

Feasibility of opening a business, such as a hotel, in a certain city

Employee absenteeism

A problem relating to a research project in progress

Equipment trouble report

Analysis of a Problem
Specialized Subjects (continued)

A communication problem in an organization

Reducing heat loss in a house

A quality control question

Assembling the Rondesics Home

Increasing transportation expenses

Airplane safety

Nature of "no fault" auto insurance

Employee tardiness

Symbols for words

Why X% of campus students are registered voters

Dumping corrosive chemicals

Suggested Subjects of Composition Based on
Report of Progress on Research

Familiar Subjects

Analysis of immediate plans

On a research paper or experiment on a given date--what has been done, what needs to be done, what problems remain

Materials gathered for a library research report

Progress to date on the student's degree

Specialized Subjects

Wind generated power

Economics of solar energy

Building inspectors--inspection papers on code reviews

Researching locations for college classroom building

Reorganizing a business office

Crop production five-year study

Energy sources

New drug to combat hypertension

Effect of Federal cut in NDS loans on enrollment

In the composition course

On music therapy

Effectiveness of school's computer system

Suggested Subjects of Composition Based on
Library Research Report

Journalistic scare tactics about cancer

An environmental topic

Review of literature on job opportunities in a field

Usefulness of indexing systems compared: ERIC, Med-line, Reader's Guide, etc.

Performance of current year automobile

The future of some matter in a student's field

Preferred insulating methods for new houses

Usefulness of home computers

Converting your home to solar heating

Downtown shopping center decay

Interpretation of Census data

The Three-Mile Island problem

Cost Analysis

Purchase of some appliance

How bad was the drought of 1980

Development of equal opportunities statutes

Use of computers in the field of printing

Ten-year growth in student's major field

Robots in the auto industry

Evaluation of training methods: OJT, classroom, CCTV, programmed

What a draftsman needs to know about welding

A handbook for volunteer firemen acquainting them with basic arson investigation principles and techniques

Status of DMSO--Nursing Students

Suggested Subjects of Composition Based on
Elementary Empirical Research

Renumbering system of buildings
on campus

Consumer response to use of
universal pricing codes

A cost-effective plain paper,
copy machine

What are the housing needs of
college students

Improved scheduling, college
services for evening students

How much and what kinds of tech-
nical writing are used in a given
place of business

A traffic count at a particular
intersection

Marketing methods for spring
dresses

Reasons for wide differences in
utility costs

Evaluation of an employee

Eating or driving or studying
habits of a group of students

Requirements of reporting by
the electric utility industry
to government

Student attitudes toward inter-
racial marriage

Setting up a nonsmokers' lounge

Subject of academic concern,
such as change in GPA for
graduation

Lab report

What distribution of courses
students choose

On a campus problem

Survey of attitudes on campus
liquor regulations

Effectiveness of college admis-
sions and orientation
practices

Science instructors' frequency
of writing

Where does a local supermarket
place non-food items and why
(interview manager, study floor
plan, customer flow, etc.)

Day-care facilities in town

Grade inflation

Writing processes of profes-
sionals in a field

Measure degree of interest in
legislation to restrict owner-
ship of handguns

What kind of new restaurant
is needed in town

A case study

Market survey for a new
product

Suggested Subjects Based on a Combination of
Library and Empirical Research

- | | |
|--|---|
| Advisability of opening a certain small business | Need for new security measures on campus |
| Marijuana | Lab report |
| Automatic thoroughfare | Practical applications of alternative energy sources |
| Analysis of the Kzar Wastewater Treatment System | Selection of a gas-saving auto |
| Computer use patterns | Use of N/C shop machines in local industries |
| Progress in implementing new gasoline vapor recovery devices | Telephone sales and collections |
| Use of smoke/heat detectors | Wood as fuel |
| Compare jogger survey to several published articles on jogging regarding best warm-up techniques | Desalinization of water |
| Local zoning problems | Reasons for decreases in prices of computers |
| The employability of college graduates in certain fields | Installation of a detection device to deter theft of electric typewriters, bicycles, etc. |
| Feasibility of using solar panels to heat a local residence | A study of arc welder settings |
| Effective measures for improving productivity in one's place of employment | A proposal to solve a problem at work |
| Use of movement theory in elementary classroom | Population changes in a court during the past ten years |
| Drugs | Importance of Federal aid to college students and to institutions of higher learning |
| Abortion | Field report on evaluating merits of bridge vs. tunnel |
| Women's rights | Feasibility of use of a secondary or tertiary recovery technique in a permian basin oil field |
| Setting up a personal corporation after graduation | |

Other Suggested Subjects for Composition

First Preference Suggestions¹

Proposal for professional service landscaping

Pros and cons of in-class vs. homework assignments

Article for a magazine (general interest article for lay audience)

Formal technical article

Persuasive paper

A paper in another course as a paper also in English

Description of an organization familiar to the student

Analysis of conditions in a building concerning fire safety investigation

Operating instructions for a piece of industrial machinery

Job application and resume (16)

Report making prominent use of a visual aid (graph, table, chart)

Letter of transmittal for a hypothetical research paper

Analyze an essay to see who the audience is (5)

Practice outlining

News release on topic of a report

Instructions manual

Informational brochure (pertaining to a campus-related subject)

A study of a topic concerning the future

Review of literature

Description of a mechanism in operation

A group writing project (2)

Feasibility report (3)

Recommendation report (2)

Analysis of measures for improving productivity in a place of employment

Bibliography for a final report

Job description (3)

Abstract (2)

Oral report with letter of transmittal and abstract

¹ Subjects from the first open-ended item provided to solicit other suggestions for composition. The numbers in parentheses indicate the number of survey respondents who suggested a given subject.

First Preference Suggestions
(continued)

Report and outline of video
taped oral technical report

Critical analysis of one's own
writing skills and problems

Case study (for allied health
students)

Design of forms, questionnaires

Condensation of a technical
writing textbook

Letter responding to a question
or complaint (2)

Project completion report

Second Preference Suggestions²

Problem/solution analysis of a
company problem

Evaluation of another student's
formal report

A standard memo

Informal communication:
"thanks"--"no thanks"

Feasibility report

Proposal (2)

Editing pages from writing of
industry to cut passives,
nominalizations, dead wood,
pomposity

Letter of adjustment for
customer claim

Sales promotional piece

Job application and resume (8)

Operations manual

A survey of career options in
a given field

² Subjects from the second open-ended item provided to solicit other suggestions for composition. The numbers in parentheses indicate the number of survey respondents who suggested a given subject.

Second Preference Suggestions
(continued)

A children's book based on a technical subject

Information report based on a visit to local business or industry

Rewrite of a technical article for a lay reader (3)

Formal technical paper

An action memo

A work order

Authorization for specified repair work on a defective vehicle

Abstract

Topic outline developed into sentence outline

Analysis of essay to determine whether it is technical writing

Rewriting an introduction or conclusion

Exercises on diction to emphasize clarity and conciseness

Oral report based on a research paper

Recommendation report

A paper in another course as a paper in English

Subjects and Sources for Library Research and Composition
Suggested by Illinois State Faculty in
the Department of Agriculture

<u>Subject</u>	<u>Source</u>
World population and food production	USDA publications available from Superintendent of Documents
Farm taxes (inheritance and income)	U.N. reports
Zoning and pollution regulations	Internal Revenue Service explanations
Gasohol	Department of Energy
Agriculture research	USDA publications
Agriculture statistics	Census and Illinois crop statistics
Formulating least-cost ration dairy rations, animal behaviors and management	<u>Journal of Dairy Science</u> ; <u>Journal of Dairy Research</u> ; <u>Journal of Animal Science</u> ; <u>Journal of Animal Behavior</u>
Rural health and safety	National Safety Council Bulletins--Farm Conference; <u>State-of-the-Art Report on Occupational Safety and Health in Agriculture</u> , Institute of Agricultural Medicine (Oakdale, Iowa: University of Iowa, 1974)
Accident prevention on the farm and ranch	National Safety Council Bulletins--Farm Conference; Farm and Ranch Safety Management Kit, National Safety Council; Agricultural Machinery Safety by John Deere, Moline, Illinois
Energy for agriculture	Gasohol USA, <u>Solar Energy Journal</u>

Department of Agriculture Subjects
and Sources (continued)

Subject

Agricultural zoning

(Any crop production area

Source

Soil Conservation Service

Farm and scientific journals

Subjects and Sources for Library Research and Composition
Suggested by Illinois State Faculty in the
Department of Applied Computer Science

Subject

History and development of programming, programming languages

Applications of computer-based design

Should computers be used in the elementary school classroom? How or why not?

Computerized crime or computer-aided law enforcement or whose side is the computer on--cops' or robbers'?

Structural systems analysis

Development of micro computers

Micro computers applied to renewable energy sources

Source

ACM journals; Sommet-Programming Languages History and Fundamentals

Data processing journals;
Computer-World

Computers and People; Micro-computing; Computer

Computer-World; Thomas Whiteside, Computer Capers, Mentor Press

Yourdon; Page-Jones

Byte and other micro journals

(Same as above)

Subjects and Sources for Library Research and Composition
Suggested by Illinois State Faculty in
the Department of Corrections

Subject

Source

Control and structuring of
 police discretion

Herman Goldstein, Policing a
Free Society; Atkins and
 Pogrebin, The Invisible
Justice System

The effects of higher education
 on police behavior and perform-
 ance

(Goldstein source above)

Juvenile justice systems

The social role differentiation
 in prison

Rehabilitation of offenders

Presentence reports

Subjects and Sources for Library Research and Composition
Suggested by Illinois State Faculty in
the Department of Health Science

<u>Subject</u>	<u>Source</u>
Human behavior and its relationship to the health of the individual	<u>Health Education Quarterly</u> ; <u>Health Education</u> ; <u>Journal of School Health</u> ; <u>Journal of the American Health Association</u>
Role of voluntary health agencies in the quality of life of a community	(Above sources)
Problem-oriented medical records	<u>Index Medicus</u> ; <u>Hospital Literature Index</u>
Legal aspects of health and health documentation	(Above source)
Medical or health topics	<u>Psychological Abstracts</u> ; <u>Biological Abstracts</u>
Topical or curriculum researches or annotated bibliographies	ERIC system or any other library sources
Any medical topics--diabetes, clinical chemistry instrumentation	
Medical technology	<u>Williams and Lundberg, Introduction to the Profession of Medical Technology</u>
JCAH requirements; Medicare conditions of participation	TCAH Manual; COP Manual
Management by objectives	

Subjects and Sources for Library Research and Composition
Suggested by Illinois State Faculty in
the Department of Home Economics

<u>Subject</u>	<u>Source</u>
Effect of inflation on families and how to cope with it	
Any consumer issues, such as government regulations	
Teaching/learning theory	
Job preparation, placement, and satisfaction	
Careers	Resource Lab in Turner Hall
Review of technical articles	
Child development research; family research	Sussman, <u>Young Children</u> ; <u>NAEYC journals</u> , <u>Journal of Marriage and Family</u>
Administration of programs	<u>Handbook of Educational Supervision</u>
Clothing and behavior; for example, Why do we wear clothes? What do clothes communicate?	<u>Home Economics Research Journal</u> ; <u>Perceptual and Motor Skills</u> ; <u>Social Science Citation Index</u>
Textiles--fibers, fabric construction, finishes, dyeing and printing, labeling	<u>American Fabrics and Fashions</u> ; <u>Textile World Retailweek</u>
Giving directions for completing a technical task or process	Technology textbooks
Explanation of how a technical device functions	Existing knowledge of the writer

Subjects and Sources for Library Research and Composition
Suggested by Illinois State Faculty in the
Department of Industrial Technology

<u>Subject</u>	<u>Source</u>
Any safety topic of interest to the student	
Potential of using solar heating as a method for heating shelters	Tully, <u>Solar Systems</u> (McGraw Hill, 1981)
The impact of satellites on communication	Periodicals
Trends in accidental death by age category, 1961-81	National Safety Council, <u>Accident Facts</u> (Annual); Federal reports
The effect of OSHA law on worker safety	(Above periodicals)
Plastics technology	Periodicals such as <u>Modern Plastics</u> ; <u>Plastic Technology</u> ; <u>Plastics Engineering</u> ; <u>Plastics World</u> ; <u>Plastics Design Forum</u> (best of the preceding list)
Industrial processing	Journals such as <u>Production</u> ; <u>Iron Age</u>
How a knowledge of graphic arts will improve students' future employability	<u>Graphic Arts Monthly</u> ; <u>Inplant Printer</u>
History of a particular technology	
Positive and negative effects of technology	
Contemporary industrial processes	
New industrial materials	

Department of Industrial Technology
Subjects and Sources (continued)

Subject

Source

Architectural styles

Numerical control machines

Topics of occupational safety
 such as machine guarding,
 electrical safety, crane
 handling, pressure vessels

Topics concerning occupational
 health--noise, dermatosis,
 radiation, ergonomics, biolog-
 ical hazards

The social costs of technology
 on society

Futurism in technology

Energy and power (energy
 sources, conversion devices,
 conservation)

Industrial plastics

Future manpower needs for the
 graphic communications industry

Responses of societal groups to
 change, technology

National Safety News; Profes-
sional Safety; National Fire
Protection Association;
National Safety Council

American Industrial Hygienists
 Association; NIOSH publica-
 tions; OSHA documents

Science; Wall Street Journal;
OMNI; Solar Age; Technology
Review; National Geographic

(See sources for plastics
 technology above)

GAFT; Kodak Manpower Study

Journals and texts in sociology,
 psychology, management

Subjects and Sources for Library Research and Composition
Suggested by Illinois State Faculty in
the Department of Biology

Subject

Recent discoveries in science

Basic principles of science, for example, evolution, homeostasis, the "cell"

Locomotion, flight, pipedal, swimming

Biological basis for medical treatments

Interdependency of the organisms in the living world: energy for life

Use of wastewater as recycled water for future use

Role of fungi in sod ecosystems

Theories of evolution

Ecological relationships--community organization

Conservation of endangered species

Nature vs. nurture: the effect of heredity on behavior

Source

Scientific American

Basic textbooks; Scientific American; Science; speciality journals

(Same as above sources)

Physiology and anatomy textbooks; journals such as New England Journal of Medicine

Ecological texts; plant physiology textbooks; journals

Reference books

Journal articles

Behavior Evolution (journal)

Ecology; EcoLogical Monographs

Current periodicals in wildlife management; Science; Nature; Natural History

E. O. Wilson, "On Human Nature"

Subjects and Sources for Library Research and Composition
Suggested by Illinois State Faculty in
the Department of Chemistry

<u>Subject</u>	<u>Source</u>
Nuclear power, processing of nuclear fuels	<u>Scientific American</u> ; <u>Journal of Education</u> ; <u>Science</u> ; <u>Science News</u> ; <u>American Scientist</u> ; <u>Physics Today</u> ; various chemical reviews and monographs but no encyclopedias
Environmental aspects of chemistry, for example, air pollution, photochemical smog, acid rains	<u>Environmental Science and Technology</u> and above journals
Spliced genes	<u>Scientific American</u> ; <u>Science</u>
Biochemical basis of cancer	<u>Scientific American</u> ; <u>Science</u>
The evolution of the periodic chart	
A comparison of acid-base concepts	
Intermolecular forces	Linus Pauling
Topics in chemistry related to consumer interests	<u>Encyclopedia of Science/Technology</u> ; <u>Science/Technology Abstracts</u> ; <u>Chemical Abstracts</u>

Subjects and Sources for Library Research and Composition
Suggested by Illinois State Faculty in the
Department of Geography-Geology

Subject

Causes of patterned ground in
periglacial environments

One physical property of
mineral

One surficial process

Source

Geologic history of the devel-
opment of Lake Michigan

Book on mineralogy

Texts on physical geology

Subjects and Sources for Library Research and Composition
Suggested by Illinois State Faculty in the
Department of Physics

Subject

Time--its role in relativity

Superconducting solids

Topics relating to energy use;
the supply of fossil and other
fuels; pollution; growth of
consumption; social and econom-
ic aspects of energy use; solar
energy; nuclear energy; the
history of nuclear energy

Source

Textbooks in modern physics;
popular articles or books
about Einstein

Science; Scientific American;
Discovery

Subjects for Composition Using Empirical Research or
Coursework Projects as Suggested by Illinois State
Faculty in Science and Technology

<u>Subject</u>	<u>Source</u>
<u>Suggestions from the Department of Agriculture</u>	
Alcohol production	
Changes in size of farms in the United States from 1880 to 1980	U.S. Census and U.S. Agri- culture Census
Feeding buffers to dairy cows	Council of Biology Editors Style Manual, 4th ed.
Comparison of agriculture of developing countries with agriculture in the U.S.	George M. Foster, <u>Traditional Societies and Technological Change</u> , 2nd ed.; <u>One Hundred Years of Farm Journal</u> by the editors of <u>Farm Journal</u> ; <u>McGraw-Hill Encyclopedia of Food, Agriculture and Nutri- tion; Another Revolution in U.S. Farming?</u> (USDA) <u>Agriculture in India</u> (Asia Publishing House) Sir Harold Tempary and D. H. Grist, <u>An Introduction to Tropical Agriculture</u>
Solar energy, alcohol fuels, wind energy	
<u>Suggestions from the Department of Health Science</u>	
Has the use of problem-oriented medical records been successful? What other fields have expanded or modified its usage?	

Suggestions from the Department of
Home Economics

Chart performance of children by computer in physical development as compared with Gesell scores and plan a program of progressive physical development for each child

Perform a technical task and explain how it works by using facts from a reference book

Suggestions from the Department of
Industrial Technology

Determine the relative conductivity, hardness, strength, etc., of materials

Attitudes of ISU students about relationship of alcohol to traffic collisions

Laboratory reports; term paper assignments

Research on process performance

Design projects

Relation of carbon content and hardness in ferrous metals

Previous surveys; periodicals

American Society for Metals
Handbook; Society for Plastics
Engineering Handbook

Suggestions from the Department of
Biology

Reclamation of strip-mine land

Laboratory exercises in general ecology, for example, forest analysis, stream fauna, and food chains

Laboratory manuals

Any subject in biology, as long as clearcut hypothesis and alternate hypotheses can be formulated and empirically tested. Use of scientific method and generation of testable hypotheses are most important.

How to Write and Publish a Scientific Paper by Robert A. Day

Suggestions from the Department of Chemistry

Project in Chemistry 200

Report on project in Chemistry 290

(Comments from faculty in Chemistry: (1) Perhaps concurrent enrollment in Research in Chemistry and English or Research in Biology and English would be an idea to pursue. (2) If I had my way, no student would be able to graduate as a major in chemistry without having had a technical writing course from the English Department preferably before writing laboratory reports as upperclassmen.)

Suggestions from the Department of Geology-Geography

Tests of physical properties of minerals

Mineralogy texts

Suggestions from the Department of Physics

Pendulum clock, at rest and accelerated